

1 What is claimed is:

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3 1. A method of monitoring by a monitoring system a data system  
4 among a plurality of data systems connected to a user system  
5 among a plurality of user systems all of which systems are  
6 interconnected through a network, the method comprising the  
7 steps of,

8 receiving search criteria from the user system,

9 retrieving content data from the data system,

10 repeating the retrieving step at regular intervals,

11 determining matches for each of the retrieving steps when  
12 the content data matches the search criteria at each of the  
13 regular intervals, and

14 reporting the matches to the user system.

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16 2. The method of claim 1 wherein,

17 the content data is web content data,

18 the data systems are web servers storing the web content  
19 data,

20 the network is the internet, the web server having a web  
21 site location identified by a uniform resource locator (URL)  
22 that indicates the web content data,

23 the user system comprises a web browser for communication  
24 with the monitoring system over the internet, and

25 the monitoring system is a web monitoring server for  
26 receiving the search criteria from the user browser and for  
27 accessing the web content data of the web server.

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3. The method of claim 1 wherein,  
the search criteria comprises a sleep interval indicating a  
time duration between the regular intervals.

4. The method of claim 1 wherein,  
the search criteria indicates keywords,  
the matches are keywords matches.

5. The method of claim 1 wherein,  
the search criteria comprises keywords, and  
the search criteria comprises a Boolean expression,  
the matching step determines when the content data matches  
the Boolean expression of the keywords as Boolean keyword  
matches.

6. The method of claim 1 wherein,  
content data is a character string comprising text words,  
the search criteria comprises a sleep interval indicating  
a time duration between the regular intervals,  
the search criteria comprises keywords, and  
the matches are keyword matches to the text words.

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1 7. The method of claim 1 wherein

2 content data is a character string comprising text words  
3 and formatting characters and strings of spaces,

4 the search criteria comprises a sleep interval indicating  
5 a time duration between the regular intervals and comprises  
6 keywords, and

7 the matches are keyword matches to the text words,

8 the method further comprising the steps of,

9 stripping the text words from the character string, the  
10 matching step matches the keywords to the text words for  
11 keywords matches.

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14 8. The method of claim 7 wherein the stripping step,

15 the character string contain formatting characters that  
16 are removed form the character string leaving the text words.

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9. The method of claim 1 wherein,

content data is a character string comprising text words and formatting characters and strings of spaces,

the search criteria comprises a sleep interval indicating a time duration between the regular intervals and comprises keywords and comprises a Boolean expression, and

the matches are Boolean keyword matches of the Boolean expression of the keywords to the text words,

the matching step matches the Boolean expression of the keywords to the text words for the Boolean keywords matches,

the method further comprising the steps of,

stripping the text words from the character string into a formatted string,

storing the formatted string for each of the retrieval steps when the formatted string has changed since a last one of the retrieval steps,

counting the number of keywords in the formatted string for each of the retrieval steps for providing keyword counts, and

the reporting step reports for each of the retrieval step when the formatted string has changed and when the keywords counts have changed in the content data since a previous one of the retrieval steps.

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1 10. The method of claim 1 wherein,

2 the content data is top level content data,

3 the top level content data is a character string

4 comprising text words and formatting characters and strings of

5 spaces and links for linkage to linked content data, the linked

6 content data also comprising text words and formatting

7 characters and strings of spaces, the linked content data being

8 at a linked depth from the top level content data for each

9 linkage through a link to another one of the linked content

10 data,

11 the search criteria comprises a sleep interval indicating

12 a time duration between the regular intervals and comprises

13 keywords and comprises a crawling depth for retrieving the top

14 level content data and linked content data to the linked depth

15 of linked content data indicated by the crawling depth,

16 the matches are keyword matches to the text words,

17 the method further comprising the steps of,

18 stripping the text words from the character string for the

19 top level content data into a top level formatted string,

20 determining a change in the top level formatted string

21 since a previous one of the retrieval steps,

22 storing the top level formatted string when there is a

23 change in the top level formatted string since the previous one

24 of the retrieval steps,

25 determining a change in a number of keywords in the top

26 level content data, the matching step matches the keywords to

27 the text words in the top level formatted string,

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stripping the text words from the character string for the  
linked content data to the crawling depth, and  
counting the number of keywords in the formatted strings  
for the top level content data and the linked content data to  
the crawling depth when there is a change in the number of  
keyword matches in the top level content data for providing  
keyword counts, the reporting step reports the keywords  
counts.

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1 11. The method of claim 1 wherein,

2 the content data is top level content data,

3 the top level content data is a character string

4 comprising text words and formatting characters and strings of  
5 spaces and links for linkage to linked content data, the linked  
6 content data also comprising text words and formatting

7 characters and strings of spaces, linked content data being at  
8 a linked depth from the top level content data for each linkage  
9 through a link to another one of the linked content data,

10 the search criteria comprises a sleep interval indicating  
11 a time duration between the regular intervals and comprises  
12 keywords and comprises a Boolean expression and comprises a  
13 crawling depth for retrieving the top level content data and  
14 linked content data to the linked depth of linked content data  
15 indicated by the crawling depth,

16 the matches are Boolean keyword matches of the Boolean  
17 expression and the keywords to the text words,

18 the method further comprising the steps of,

19 stripping the text words from the character string for the  
20 top level content data into a top level formatted string,

21 determining a change in the top level formatted string  
22 since a previous one of the retrieval steps,

23 storing the top level formatted string when there is a  
24 change in the top level formatted string since the previous one  
25 of the retrieval steps,

26 determining a change in a number of keywords in the top  
27 level content data, the matching step matches the keywords to  
28 the text words in the top level formatted string,

stripping the text words from the character string for the  
linked content data to the crawling depth, and  
counting the number of keywords in the formatted strings  
for the top level content data and the linked content data to  
the crawling depth when there is a change in the number of  
keyword matches in the top level content data for providing  
keyword counts, the reporting step reports the keywords  
counts.

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1 12. A method of monitoring by a monitoring server web content  
2 data of a web server system among a plurality of web servers  
3 connected to a user system among a plurality of user systems  
4 having respective user browsers, all of which are  
5 interconnected through the internet using internet protocol  
6 addresses, the web content data indicated by a URL a portion of  
7 which indicates the web server the method comprising the steps  
8 of

9       receiving search criteria from the user system, the search  
10 criteria comprises keywords and comprises a crawling depth for  
11 retrieving top level content data and linked content data to  
12 the linked depth of the linked content data indicated by the  
13 crawling depth,

14       retrieving top level content data and the linked  
15 content data from the data system, the top level content data  
16 is a character string comprising text words and formatting  
17 characters and strings of spaces and links for linkage to  
18 linked content data, the linked content data also comprising  
19 text words and formatting characters and strings of spaces,

20       determining matches when the top level content data  
21 matches the search criteria, and

22       reporting the top level matches to the user system.

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24 13. The method of claim 12, wherein the determining step  
25 further determines keyword matches to the linked content data.

1 14. The method of claim 12, wherein the determining step  
2 further determines keyword count of the keywords in the linked  
3 content data.

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1 15. A method of monitoring by a monitoring server web content  
2 data of a web server system among a plurality of web servers  
3 connected to a user system among a plurality of user systems  
4 having respective user browsers, all of which are  
5 interconnected through the internet using internet protocol  
6 addresses, the web content data indicated by a URL a portion of  
7 which indicates the web server the method comprising the steps  
8 of,

9 receiving search criteria from a user system, the search  
10 criteria comprising a URL to be monitored, a sleep interval,  
11 keywords and a Boolean expression,

12 retrieving the web content data indicated by the URL from  
13 the web server,

14 repeating the retrieving step at regular intervals indicated  
15 by the sleep interval,

16 determining Boolean keyword matches of the web content data  
17 after the retrieving step for the Boolean expression and  
18 keywords, and

19 reporting to the user system of the Boolean keyword matches.  
20 the content data is top level content data, the top level  
21 content data is a character string comprising text words and  
22 formatting characters and strings of spaces and links for  
23 linkage to linked content data, the linked content data also  
24 comprising text words and formatting characters and strings of  
25 spaces, linked content data being at a linked depth from the  
26 top level content data for each linkage through a link to  
27 another one of the linked content data.

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16. The method of claim 15 wherein,

the search criteria comprises a sleep interval indicating a time duration between the regular intervals and comprises keywords and comprises a Boolean expression and comprises a crawling depth for retrieving the top level content data and linked content data to the linked depth of linked content data indicated by the crawling depth,

the matches are Boolean keyword matches of the Boolean expression and the keywords to the text words,

the method further comprising the steps of,  
stripping the text words from the character string for the top level content data into a top level formatted string,  
determining a change in the top level formatted string since a previous one of the retrieval steps,

storing the top level formatted string when there is a change in the top level formatted string since the previous one of the retrieval steps,

determining a change in a number of keywords in the top level content data, the matching step matches the keywords to the text words in the top level formatted string,

stripping the text words from the character string for the linked content data to the crawling depth, and

counting the number of keywords in the formatted strings for the top level content data and the linked content data to the crawling depth when there is a change in the number of keyword matches in the top level content data for providing keyword counts, the reporting step reports the keywords counts.

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17. The method of claim 16 wherein the reporting step comprises the steps of,  
 providing the user with a notification through the internet of keyword matches,  
 storing keywords counts for the keywords for the respective top level web content data and the linked content data,  
 receiving a display request from the user system through the internet, and  
 communicating through the internet to the user system display data for displaying on the user system indication of the keyword counts.

18. The method of claim 16 wherein the formatting characters comprises HTML tag characters.

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